

STUDIES IN ACARINA I

H. V. M. HALL, POMONA COLLEGE, CLAREMONT, CALIFORNIA.

In the working up of large collections of Acarina recently made by me in the Eastern United States and in the Southwest, there appear a number of forms apparently undescribed, and I shall present fascicles of these from time to time, with carefully prepared descriptions and illustrations.

Damaeus cephalotus n. sp.

(Figure 161)

Length .62-.64 mm.; color chestnut, polished.

Abdomen hemispherical, without wings. Mandible chelate; cephalothorax quite large, anchylosed to abdomen, but with deep suture between. Without lamella or tectopedium. Rostral hairs stout and pectinate. Pseudostigmatic organ with long peduncle and gradually clavate head, not pointed at distal end. Interlamellar hair, fine and pectinate. Abdomen with scattering, stout, pectinate hairs near the edge. Legs thin, a little longer than abdomen, sparsely set with fine hairs.

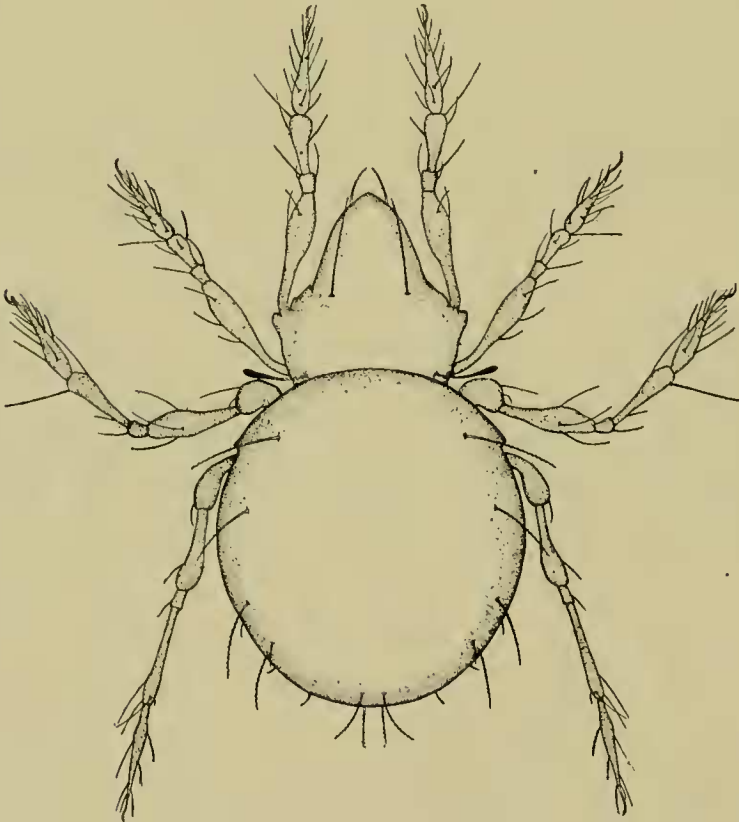


Figure 161. *Damaeus cephalotus*

A long hair on apex of penultimate joint. A few hairs on tarsi II, III and IV are fine and pectinate. Unguis monodactyle. Femora gradually clavate, projection between legs I and II blunt anteriorly. Leg I on a chitinous projection of cephalothorax, coxæ and trochanters I and II drawn into cephalothorax and apparently missing. This species is easily distinguished from *D. tenuipes* Michael, *D. geniculatus* Koch, and *D. concolor* Koch, by difference in length; also by general shape of pseudostigmatic organ and by absence of furrows or other markings on cephalothorax. Under rotting boards, New Haven, Conn.,

Notaspis bilamellatus n. sp.

(Figure 162)

Length .79-.96 mm. Light chestnut, smooth, but not polished. Abdomen broader than long, globular, without wings. Cephalothorax large, anchylosed to abdomen. Mandible large chelate. Lamellæ blades on edge, running from pseudostigmata and meeting forward; cusps of lamella thickened, free, and projecting forward horizontally. Lamellar hairs long, stout and smooth. Rostral hairs half as long,

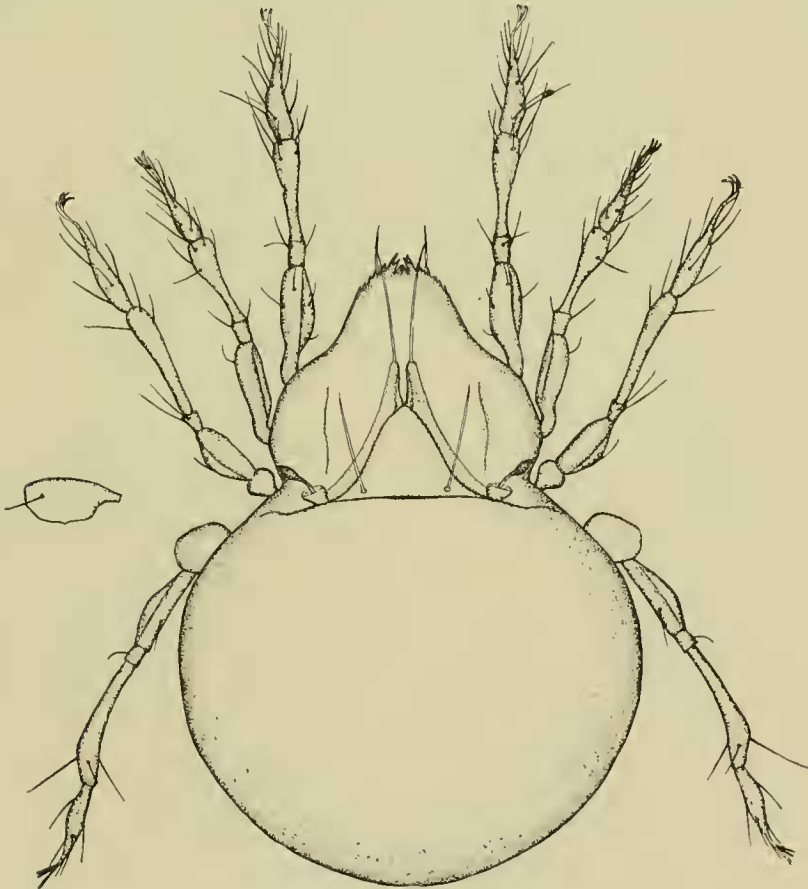


Figure 162. *Notaspis bilamellatus*

stout and smooth. No translamella; pseudostigmatic organ with medium length stem and fusiform head. Interlamellar hairs long, stout, smooth. Femora with blades. Abdomen hairless. Legs about the length of abdomen, moderately set with long fine hairs. Unguis tridactyle. Last three pairs of legs inserted at edge of body. Anterior corners of abdomen not projecting. Several specimens under large stone, Claremont, Cal. In classifying this species in the genus *Notaspis* I have followed Michael. Michael and Banks disagree about this genus, Michael describing *Notaspis* as having the body smooth, while Banks affirms that the body is more or less rough. As this feature is used in both keys it is apt to cause confusion if the disagreement is not noticed. This species is most like *N. burrowsi* Michael, but differs in having no hairs on the abdomen, no translamella, and simple hairs on the legs.

Oribata setiformis n. sp.

(Figure 163)

Length .90-.96 mm. Color dark chestnut, polished. Abdomen globose with large wing-like expansions. Mandible thick and stout. No lamella. Dorsal covering extends forward to rostrum without break. Rostral hairs are pectinate. No translamella. Interlamellar hairs stout and pectinate. Pseudostigmatic organ seti-

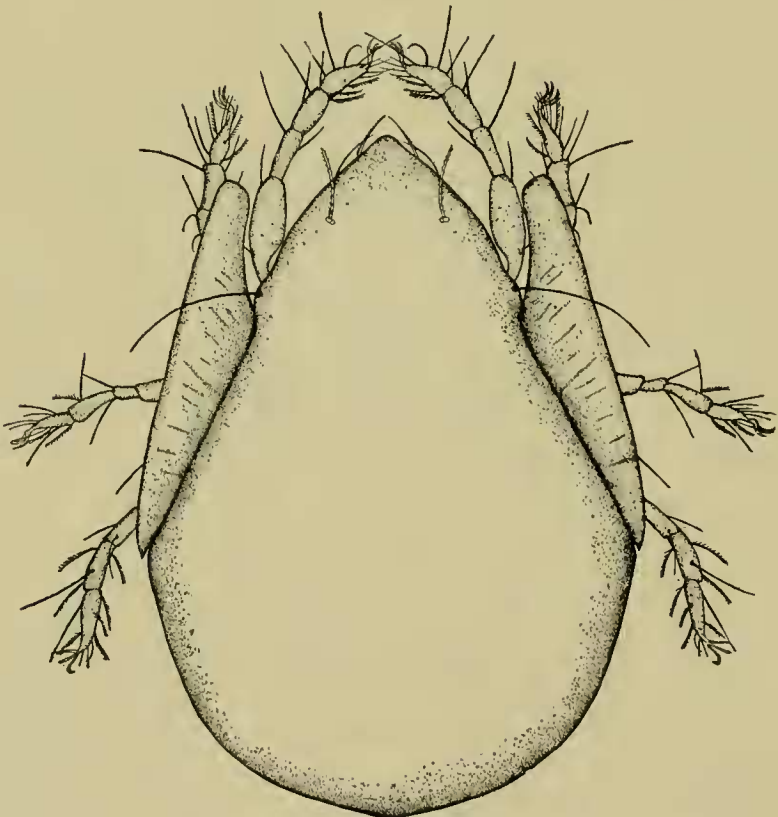


Figure 163. *Oribata setiformis*

form, smooth and one-fourth the length of body. Femora without blades. Abdomen smooth, hairless, and as broad, just behind the wings, as three-quarters the length of the body. The wings project forward almost as far as rostrum, and are rounded anteriorly. Wings are sculptured transversely. The legs bear rather long bristles, several on each tarsus being feathered. Unguis tridactyle. Legs not quite half the length of body. Under rotting boards, New Haven, Conn. This species is distinguished from *O. alata* Hermann, *O. dorsalis* Koch and *O. rugifrons* Stoll, by its large size and by its setaform pseudostigmatic organ.

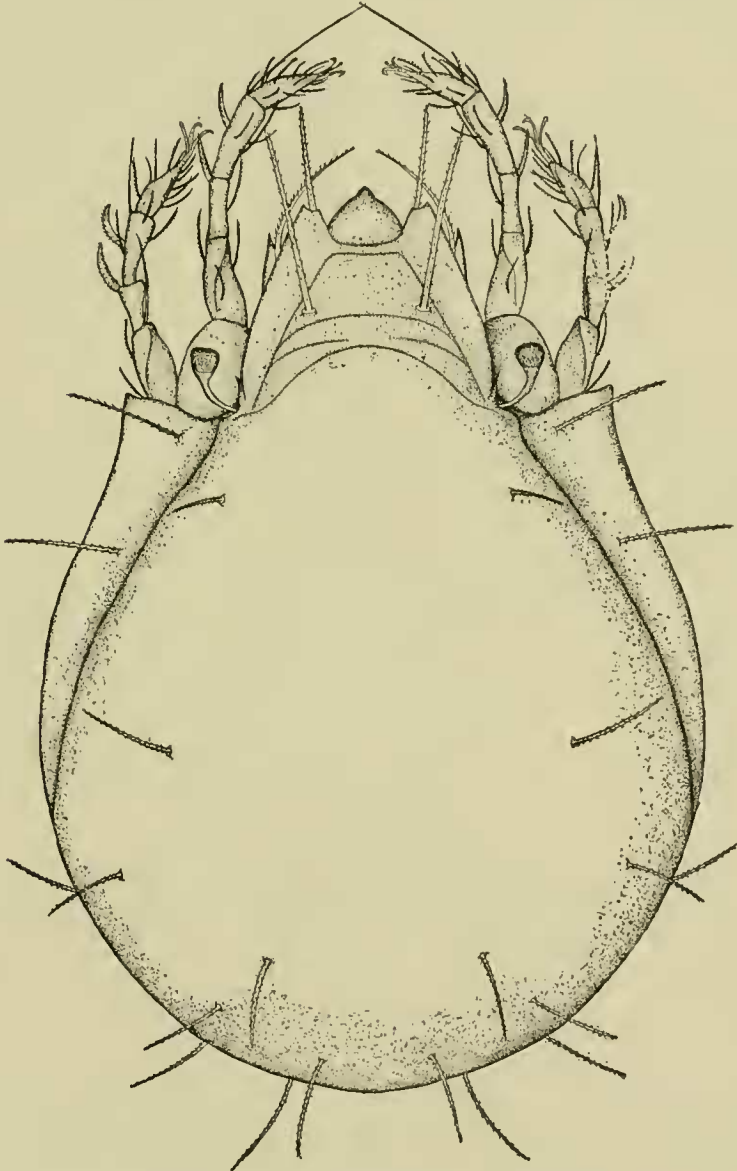


Figure 164. *Oribata latincisa* var. *gigantea*

Oribata latincisa Ewing var. *gigantea* n. var.

(Figure 164)

Length .80-.98 mm. Color dark chestnut, polished. Abdomen globose with narrow, chitinous, wing-like expansions. Mandible, thick and stout. Lamella blade-like, horizontal. Cusps of lamella short, truncated, lamellar hair rising from shorter corner. Lamellar hairs stout, pectinate. Tectopedium I projects even with trans-lamella; tectopedium I bears stout, curved, pectinate hair projecting in front of rostrum. Rostral hairs not apparent. Pseudostigmatic organ capitate. Inter-lamellar hairs erect, stout, pectinate. Anterior end of abdomen rounded. Femora with blades. Abdomen and wings set with scattering, stout, pectinate hairs, not as stout as lamellar or interlamellar hairs. *Wings* of abdomen truncated anteriorly. Legs about one-third the length of body, sparsely covered with fine, pectinate hairs. A long, fine, bristle at apex of penultimate joint of legs I and II. Unguis tridactyle. A swollen, pectinate, specialized hair on the outer apex of antepenultimate joint, and another midway on outside of penultimate joint of legs I and II.

Under rotting boards, New Haven, Conn. Somewhat like *Oribatella bidentata* Banks, but much larger and without the characteristic color markings of that species.

Hoploderma capitata n. sp.

(Figure 165, above)

Length .8-.83 mm. Color yellow with black internal organs. Abdomen elliptical, about as broad as high, without wings. Cephalothorax hinged so as to fold down on ventral surface. Aspis without carina; genital and anal covers separate. Anal covers with short spines. No elliptical depressions on aspis. Pseudostigmatic organ capitate. Four long bristles on each side of aspis, and two similar bristles on anterior end of dorsal abdomen. Legs half the length of body, sparsely set with fine hairs of which some on legs III and IV are pectinate. A long, thin bristle on apex of penultimate joint of leg I. Unguis monodaetyle. Under drift-wood, Pawson Park, Conn.

This species differs from *H. globosum* Koch, by having the pseudostigmatic organ capitate and with quite a stalk instead of sessile and fusiform, and by having only four hairs on the dorsum of abdomen and those placed well forward.

Genus *Pelopsis* n. gen.

Mandible broad at base, suddenly becoming styloform, terminated by minute chelæ. No spatulate hairs on any part. Rectangular projection from anterior margin of abdomen. Unguis tridactyle. Pteromorphæ attached to cephalothorax.

Near to *Pelops*, but wholly without spatulate hairs.

Pelopsis nudiuscula n. sp.

(Figure 165, below)

Length .51 mm. Color dark chestnut, polished. Abdomen with large, chitinous, wing-like expansions. Mandible broad at base, suddenly becoming and continuing slender and rod-like, chelæ small. Interlamellar hairs wanting. Lamella blade-like, horizontal, cusps of lamella deeply emarginate, the two tips being subequal

in length. Lamellar hairs wanting. Tectopedium I ending in a long hair. Rostrum rounded; rostral hairs stout, curved, pectinate. No translamella. Pseudostigmatic organ clavate, smooth. Abdomen without hairs, pyriform. Legs less than half the length of body, sparsely set with fine hairs, a few being pectinate, and one long bristle on apex of penultimate joint of leg I. Unguis heterodactyle, median claw much the heaviest. Lateral claws small and almost transparent. Rectangular projection from anterior margin of abdomen with a median chitinous point reaching almost to rostrum. Dorsum of abdomen hairless, not pitted. Under driftwood on salt marsh, Pawson Park, Conn.

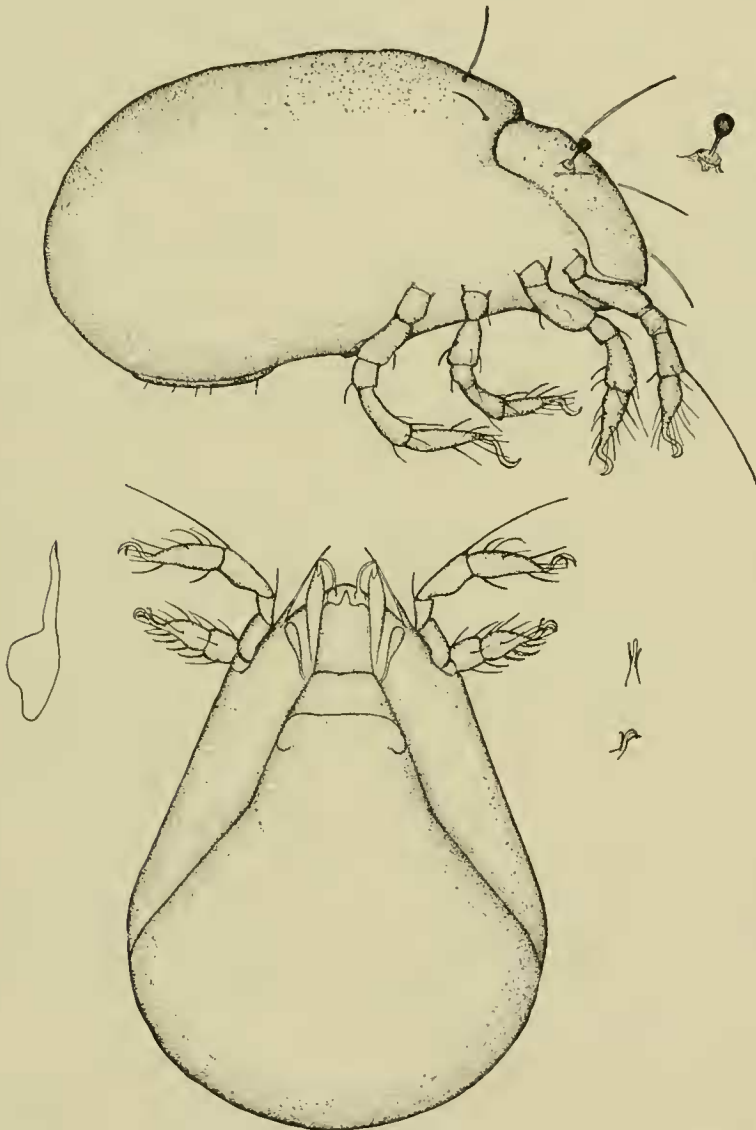


Figure 165. *Hoploderma capitata*, above; *Pelopsis nudiuscula*, below

Paraphytoptus californicus Hall

1910—Pomona Journ. Ent. II, p. 280.

This was inadvertently described as an *Eriophyes*, to which genus, strictly speaking, it does, of course, not belong. An opinion of Nalepa, kindly communicated by Mr. P. J. Parrot, states that this is probably the same as the European *P. peravorus*. His reasons for such a reference are not given. The galls of *P. californicus* as known here, are very characteristically distinct from any other known American phytoptid.